

Title (en)
Field to field vertical panning system.

Title (de)
System zum vertikalen Panoramieren von Halbbild zu Halbbild.

Title (fr)
Système d'une panoramique verticale de trame en trame.

Publication
EP 0578162 A1 19940112 (EN)

Application
EP 93110697 A 19930705

Priority
US 91164892 A 19920710

Abstract (en)
A television apparatus comprises a display for a video signal representing a picture. The video signal has a vertical synchronizing component defining fields of horizontal lines which can have other than a standard number of horizontal lines per field under certain operating conditions. A counters (1404, 1410) and latches (1408, 1409) measure the number of horizontal lines successive fields. A panning circuit (1416, 1420, 1424, 1430) generates a vertical reset signal (VRST) which is phase shifted by a selected number of horizontal lines (RESET PHASE) relative to the vertical synchronizing component of the video signal for vertically panning the picture on the video display by the selected number of horizontal lines. The selected number of horizontal lines is adjusted responsive to the measured lengths of the fields to maintain the selected amount of vertical panning even under the certain operating conditions. <IMAGE>

IPC 1-7
H04N 5/44; **H04N 3/24**

IPC 8 full level
H04N 3/22 (2006.01); **G09G 1/00** (2006.01); **H04N 3/16** (2006.01); **H04N 3/227** (2006.01); **H04N 3/24** (2006.01); **H04N 5/45** (2011.01); **H04N 5/775** (2006.01)

CPC (source: EP KR US)
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Citation (search report)
• [A] WO 9119378 A1 19911212 - THOMSON CONSUMER ELECTRONICS [US]
• [A] US 3878327 A 19750415 - UHLER MARCUS H
• [A] PATENT ABSTRACTS OF JAPAN vol. 12, no. 474 (E-692)12 December 1988 & JP-A-63 193 779 (MATSUSHITA ELECTRIC IND.CO.,LTD.) 11 August 1988
• [A] PATENT ABSTRACTS OF JAPAN vol. 12, no. 412 (E-676)31 October 1988 & JP-A-63 148 780 (SHARP CORP.) 21 June 1988

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Designated contracting state (EPC)
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EP 0578162 A1 19940112; **EP 0578162 B1 19981014**; CN 1050024 C 20000301; CN 1085714 A 19940420; DE 69321527 D1 19981119; DE 69321527 T2 19990311; ES 2121902 T3 19981216; JP 2002027279 A 20020125; JP 3384842 B2 20030310; JP 3768414 B2 20060419; JP H06105177 A 19940415; KR 0181975 B1 19990501; KR 940003359 A 19940221; MX 9304157 A 19950131; MY 107772 A 19960615; SG 76453 A1 20001121; US 5294987 A 19940315

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EP 93110697 A 19930705; CN 93108594 A 19930709; DE 69321527 T 19930705; ES 93110697 T 19930705; JP 19534793 A 19930712; JP 2001162287 A 20010530; KR 930012902 A 19930709; MX 9304157 A 19930709; MY PI19931279 A 19930630; SG 1996002322 A 19930705; US 91164892 A 19920710